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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/713,614

11/14/2003

Robert J. Nolan

0011388.00274

2513

21878 7590 12/21/2007

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EXAMINER

TALBOT, BRIAN K

ART UNIT

PAPER NUMBER

1792

MAIL DATE

DELIVERY MODE

12/21/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/713,614	Applicant(s) NOLAN ET AL.	
	Examiner Brian K. Talbot	Art Unit 1792	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 October 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-55 is/are pending in the application.
- 4a) Of the above claim(s) 43-55 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-42 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 8/23/07 has been entered.

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Specification

3. The amendment filed 10/10/07 is objected to under 35 U.S.C. 132(a) because it introduces new matter into the disclosure. 35 U.S.C. 132(a) states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows: “entirety of the end caps being uncovered”.

Applicant is required to cancel the new matter in the reply to this Office Action.

The Examiner is unable to find support in the specification for this limitation. Applicant is invited to supply page and line number for support.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 8 and 12 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 8 appears to be contradictory with respect to claim 1. The claim recites heating the fluorescent light tube whereby claim 1 recites heating only the end caps. Clarification is requested.

Claim 12 appears to not be further limiting to claim 10 as claim 10 already recites "heating the end caps". Clarification is requested.

5. Claims 1-42 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

The "entirety of the end caps being uncovered" is not described in the specification.

6. Claims 1-42 are rejected under 35 U.S.C. 112, first paragraph, as based on a disclosure which is not enabling. The end cap having pins therein as well as the coating being applied to the end caps along with the gap spacing and the travel rate of the light tubes are critical or essential to the practice of the invention, but not included in the claim(s) is not enabled by the disclosure.

See *In re Mayhew*, 527 F.2d 1229, 188 USPQ 356 (CCPA 1976).

It is the combination of the gap and travel rate of the light tubes which enables the end caps/and pins to not be covered (see [0026]). It is confusing as the [0024] states that the gap is coated and has to be sheared thereafter. Would this not "coat the pins"? If not, Clarification is requested.

Claim Rejections - 35 USC § 103

7. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

8. Claims 1-7,9-11,13,19-22,24,26-28 and 30-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dupont '705 in combination with Nolan et al. (4,804,886) or Nolan (4,507,332).

Dupont et al. (2002/0187705, hereafter '705) teaches a method of coating a fluorescent light tube (10) having opposing end caps with electrically conductive pins (18) extending from at least one of the end caps, the method comprising the steps:

- a) loading the fluorescent light tube on a coating conveyor system [0022];
- b) feeding the fluorescent light tube to a coating station, which includes a coating machine [0021];
- c) applying a coating to the fluorescent light tube with the electrically conductive pins uncovered (Fig. 2) at the coating station [0020]; and
- d) conveying said fluorescent light tube to a stacking and/or packaging station [0022].

Claim 2: Excess coating is removed from the ends of the article ([0026]; also compare Figs. 2 and 3).

Claims 3-5, 19-21: A plurality of articles is loaded to form a chain of articles with gaps therebetween, and the coating is applied to the chain and gaps to connect the sequentially coated light tubes. Each article is separated after the coating step (Fig. 2; [0026]).

Claims 6, 11: The coated bulb is cooled below the softening point of the thermoplastic material [0006].

Claims 7, 13: A vacuum is applied during the coating process [0021].

Claim 9: The coating step extrudes a molten thermoplastic material [0021].

Claims 10: The fluorescent tubes (10) are conveyed sequentially in longitudinal alignment with one another (Figs. 1, 2, 8). The coating extrudes molten thermoplastic material around each tube substantially in direct intimate contact with the tube [0021].

Claims 22, 36: The coated tubes are taken up by rolls to draw them away from the extruder. The coating thins, indicating that the leading lamp must be accelerated away from the trailing lamp [0022].

Claims 24-28: One of ordinary skill in the art would have understood that a process of the complexity that requires the coordination of simultaneously performing the large number of operations of '705 would have been controlled by a computer (i.e., automatically).

Claims 30-32: The thickness of the coating may be about 16 mils [0027].

Dupont '705 fails to teach directly coating the end caps as well as the tubes by not covering the entirety of the end caps with any element intervening the coating and the end caps.

Nolan et al. (4,804,886) or Nolan (4,507,332) both teach applying a safety coating to the fluorescent lamp and a portion of the end caps (abstract).

Therefore it would have been obvious for one skilled in the art at the time the invention was made to have modified Dupont '705 process by coating a portion of the end caps as evidenced by either Nolan et al. (4,804,886) or Nolan (4,507,332) with the expectation of achieving similar success, i.e. prevention of the glass shards from a breakage of the glass.

Dupont '705 in combination with Nolan et al. (4,804,886) or Nolan (4,507,332) is discussed above. It is the examiner's position that one of ordinary skill in the art would have understood that a process of the complexity that requires the coordination of simultaneously

performing the large number of operations of Dupont '705 in combination with Nolan et al. (4,804,886) or Nolan (4,507,332) would have been controlled by a computer (i.e., automatically), but Dupont '705 in combination with Nolan et al. (4,804,886) or Nolan (4,507,332) does not explicitly so state. However, it has long been held that automating a manual activity is not sufficient to distinguish over the prior art (MPEP 2144.04.III).

Claims 33-35: Dupont '705 in combination with Nolan et al. (4,804,886) or Nolan (4,507,332) is silent as to the distance between end caps of sequential tubes. However, this distance would have been recognized as a result-effective variable because the amount of space between tubes affects the total amount of space required for the apparatus and the amount of excess polymer coating between tubes that is discarded, and the amount of safe room for the cutting process to separate the tubes. It has been held that the discovery of the optimum value of a result effective variable in a known process is ordinarily within the skill in the art. *In re Boesch and Slaney*, 205 USPQ 215 (CCPA 1980).

Claims 6, 11, 15-18, and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dupont '705 in combination with Nolan et al. (4,804,886) or Nolan (4,507,332), as applied to claim 1, and further in view of Weingarten (U.S. Patent 3,706,216, hereafter '216).

Dupont '705 in combination with Nolan et al. (4,804,886) or Nolan (4,507,332) is discussed above. The lamp must inherently be impelled to bring it to the extruder. Dupont '705 in combination with Nolan et al. (4,804,886) or Nolan (4,507,332) does not explicitly teach that the lamp is impelled after cooling. However, '216 teaches that in extrusion processes, the extrusion coated articles may be impelled for further processing after being forcibly cooled (col.

4, line 56-col. 5, line 5), such as cutting. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have impelled the lamps of '705 after the desired cooling step for further processing such as cutting with a reasonable expectation of success because '216 teaches that such is a suitable order of operations for cooling and separating extrusion-coated lengths of material. The selection of something based on its known suitability for its intended use has been held to support a *prima facie* case of obviousness.

Sinclair & Carroll Co. v. Interchemical Corp., 325 U.S. 327, 65 USPQ 297 (1945).

Claim 16-18: As discussed above, '216 teaches that cooling with a water bath or with air are operative methods of cooling an extrusion coated substrate. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have accomplished the cooling of Dupont '705 in combination with Nolan et al. (4,804,886) or Nolan (4,507,332) using a water bath or air with a reasonable expectation of success because '216 teaches that they are suitable methods of cooling extrusion coated substrates.

Claims 8, 12, 14, and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dupont '705 in combination with Nolan et al. (4,804,886) or Nolan (4,507,332), as applied to claim 1, and further in view of Sica (U.S. Patent 6,043,600, hereafter '600).

Dupont '705 in combination with Nolan et al. (4,804,886) or Nolan (4,507,332) is discussed above, but does not explicitly teach heating the end caps before loading or conveying the tube. Dupont '705 in combination with Nolan et al. (4,804,886) or Nolan (4,507,332) does not explicitly describe the process of attaching the end caps to the tube. However, the Examiner takes Official Notice that it is notoriously well known to attach the end caps to the fluorescent

tube by surrounding them with a sleeve and heating. See, e.g., '600, col. 2, lines 29-39.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have attached the end caps to the tube of Dupont '705 in combination with Nolan et al. (4,804,886) or Nolan (4,507,332) by heating because such is known in the art that such is a suitable method of assembling the end caps and fluorescent tube.

Claim 14: Dupont '705 in combination with Nolan et al. (4,804,886) or Nolan (4,507,332) teach infrared heat is suitable to heat end caps [0024].

Claim 25: It is the examiner's position that one of ordinary skill in the art would have understood that a process of the complexity that requires the coordination of simultaneously performing the large number of operations of Dupont '705 in combination with Nolan et al. (4,804,886) or Nolan (4,507,332) would have been controlled by a computer (i.e., automatically), but Dupont '705 in combination with Nolan et al. (4,804,886) or Nolan (4,507,332) does not explicitly so state. However, it has long been held that automating a manual activity is not sufficient to distinguish over the prior art (MPEP 2144.04.III).

Claims 23 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dupont '705 in combination with Nolan et al. (4,804,886) or Nolan (4,507,332), as applied to claim 1, and further in view of Duzyk et al. (U.S. Patent 5,532,549, hereafter '549).

Dupont '705 in combination with Nolan et al. (4,804,886) or Nolan (4,507,332) is discussed above. Excess coating is removed from the end caps of the lamps ([0026]; also compare Figs. 2 and 3). Dupont '705 in combination with Nolan et al. (4,804,886) or Nolan (4,507,332) does not explicitly teach labeling the tubes. However, the examiner takes Official

Notice that it is notoriously well known to label fluorescent lamps to provide useful information. See, e.g., '549, col. 9, lines 1-5. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have labeled the lamp of Dupont '705 in combination with Nolan et al. (4,804,886) or Nolan (4,507,332) with a reasonable expectation of success in order to have provided information to the consumer.

It is the examiner's position that one of ordinary skill in the art would have understood that a process of the complexity that requires the coordination of simultaneously performing the large number of operations of Dupont '705 in combination with Nolan et al. (4,804,886) or Nolan (4,507,332) would have been controlled by a computer (i.e., automatically), but Dupont '705 in combination with Nolan et al. (4,804,886) or Nolan (4,507,332) does not explicitly so state. However, it has long been held that automating a manual activity is not sufficient to distinguish over the prior art (MPEP 2144.04.III).

Claim 37 is rejected under 35 U.S.C. 103(a) as being unpatentable over Dupont '705 in combination with Nolan et al. (4,804,886) or Nolan (4,507,332), as applied to claim 1, and further in view of Payne (WO02/16049, hereafter '049).

Dupont '705 in combination with Nolan et al. (4,804,886) or Nolan (4,507,332) is discussed above. It does not explicitly teach the rate at which the lamps are conveyed. '049 teaches that a suitable rate for linking together fluorescent lamp tubes with an extrudable coating is about 6-49 ft/min (p. 8, lines 4-9). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have used such a rate with a reasonable

expectation of success because '049 teaches that it is a suitable rate for linking together fluorescent lamp tubes with an extrudable coating.

Claims 38-41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dupont '705 in combination with Nolan et al. (4,804,886) or Nolan (4,507,332), as applied to claim 1, and further in view of Weingarten '216, as applied to claim 6 and Sica '600, as applied to claim 8. See also the further discussion of claims 3, 6, 7, 10, 22, and 24 above.

Claim 42 is rejected under 35 U.S.C. 103(a) as being unpatentable over Dupont '325 in view of Weingarten '216 and Sica '600, as applied to claim 38, and further in view of Duzyk '549 for substantially the same reasons given regarding claim 23.

Response to Arguments

9. Applicant's arguments with respect to claims 1-42 have been considered but have not been found persuasive.

Applicant argued that Dupont '705 failed to teach coating the fluorescent tubes and end caps without any interfering element between the coating and the "entirety" of the end caps and that Nolan et al. (4,804,886) or Nolan (4,507,332) only teach leaving the end caps partially uncovered.

While the Examiner acknowledges this fact, it is the Examiner's position that one skilled in the art at the time the invention was made would have had a reasonable expectation of achieving similar success by "entirely uncovering the end caps – instant claim" or to have the

end caps “partially uncovered – prior art” as in both instances the end caps and the light tube are coated to prevent shards of glass if the light tube is broken.

If Applicant were to amend the claims as detailed in the 35 USC 112 rejection above, the Examiner would reconsider his position.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian K. Talbot whose telephone number is (571) 272-1428. The examiner can normally be reached on Monday-Friday 6AM-3PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner’s supervisor, Timothy H. Meeks can be reached on (571) 272-1423. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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 12/19/07

Brian K Talbot
Primary Examiner
Art Unit 1762

BKT